

**Bread spread with Cola flavor and method for producing said bread spread**

The present invention relates to a bread spread, as is known from other such products, as well as a process for manufacturing such a spread.

Such spreads are used primarily for putting on bread or small pastries, especially for breakfast food. For example, marmalades and jams exist, which have a large share of fruit. The use of nut nougat as a spread on bread has gained widespread use over the past few years.

A spread mixture is known from DE-A1-195 42 634, which is composed of a fruit jelly mixture. The fruit jelly mixture contains above all inverted sugar, water, citric acid monohydrate, gelatin, glycerin and jelly baby aroma. It can also contain fruit juice, coloring fruit extracts or coloring plant extracts, vegetable fat and separating agents.

A process for treating coconut products is known from US-A-3 860 725. These products contain, for example, organic acids such as citric acid, and thickening agents such as starch, gelatin and pectin. They can also contain milk and sorbite (especially sorbitol) as sweetening agents and be caramelized.

The object of the invention is to create a spread with a different taste. Another object is to create a spread that stimulates circulation. Additionally, the invention has the object of creating a process for manufacturing such a spread.

This objective is achieved on one hand by a spread with the characteristics of patent claim 1, and on the other hand by a process with the characteristics of patent claim 10 or 11. Other objects and advantages both of the present invention with respect to the spread and the process are the object of the respective subordinate claims.

The spread of the present invention contains at least one beverage, sugar or sweetening agent, thickening agent, acidification agent and cola aroma. Consequently, such a spread makes a cola presence on the breakfast table possible. Especially children know cola products from the beverage and sweets industry, so that a certain recognition value of the general taste is possible and consequently a new type of spread is created. Those customers who like the taste of cola products will also like the taste of spreads with a cola aroma.

Another object of the invention is to provide a beverage that is an alcoholic beverage or a non-alcoholic beverage, preferably composed of water, milk, fruit juice or vegetable juice. Such beverages are common and consequently easy to procure. It is also easy to influence or specifically control the general taste of the invented spread by the choice of the beverage.

As previously mentioned, the spread contains sugar or a sweetening agent, so that it is possible to produce on one hand a spread containing sugar and on the other hand a spread largely free of sugar, which can also be suitable for diabetics. The sugar is preferably composed of the substance trehalose, which results in a sweet-tasting disaccharide with properties protecting teeth and which do not have a laxative effect composed of (mold) fungi as well as yeast, lichen, algae, bacteria, moss and a sweetening agent as a sugar substitute such as mannitol, xylite, sorbite, isomalt, maltitol, lactitol or starch syrup, or a sweetening agent such as cyclamate, aspartame, saccharin or acesulfam potassium. This makes it possible to create a sugar-free spread.

Another object of the invention is to provide a spread wherein the thickening agent is preferably agar-agar, gum Arabic, pectin, guar flour, carob bean flour, starch, dextrin or gelatin, whereby the thickening agent preferably contains carob bean flour and pectin or pectin and corn starch in another variant. Such thickening agents are common on the market and easy to procure.

Analog compositions also apply to the acidification agent, which contains citric acid, tartaric acid and/or lactic acid in a preferable version of the invention.

Another object of the invention is to provide a spread that has a fruit mixture, which preferably contains applesauce and/or a nougat mixture such as mixtures composed of nut nougat, almond nougat, almond-nut-nougat or sweetened nut pulp - especially a nut-nougat cream. Such mixtures serve above all to change or influence the taste of the spread. If a nut-nougat cream is used, people who eat the invented spread will be reminded of the nut-nougat cream used as a spread that they know and consequently transfer positive experiences with such a cream to the invented spread. It is general knowledge that the ingredients applesauce and nougat cream are available in numerous food stores.

Another object of the invention is to provide a spread that contains a food-coloring agent preferably in the form of caramel syrup. This serves to set and adjust the color of the spread, so that it can be made visually attractive.

Another object of the invention is to provide a spread that can contain additional aroma substances, preferably caramel aroma and/or lime aroma, and/or stimulating substances, preferably caffeine and taurine. The first-cited substances can also serve as flavor enhancers. The substance taurine plays an important role in the development of the central nervous system and influences transport processes of metallic ions.

Another preferable object of the invention is to provide a spread that contains the following ingredients in proportions of weight:

100 parts water

20 parts sugar

1.6 parts carob bean flour

1.6 parts pectin

40 parts starch syrup  
20 parts sugar  
40 parts applesauce  
20 parts caramel syrup

1.5 parts citric acid  
0.9 parts cola aroma  
0.6 parts caramel aroma  
0.1 part lime aroma

Such a spread tastes good and can be mixed without problems with other breakfast products such as curd cheese. The health-promoting effect is consequently increased.

Another object of the invention is to provide a largely sugar-free spread with the following ingredients in proportions of weight:

100 parts milk  
50 parts isomalt  
  
7 parts corn starch  
1.6 parts pectin  
0.2 parts aspartame  
  
60 parts sorbite  
  
20 parts nut-nougat cream  
0.2 parts cola aroma  
1 part caramel aroma

This spread provides the advantage that it only contains little sugar and consequently can be suitable for diabetics. This spread can also be mixed with other products normally eaten at breakfast.

The invention also makes it possible to produce a completely sugar-free spread with cola aroma.

The task can be completed using a process with the characteristics of the patent claim 12 or 13.

The process steps contained therein - mixing, stirring in, boiling, adding, dissolving by stirring - can be carried out easily using a hotplate. Such hotplates exist in almost every household. The production of the invented spread can also be carried out by unskilled labor.

A further advantageous object of the invention involves dissolving preferably at a temperature of approximately 60° C, boiling preferably for a time period of approximately five seconds and decanting preferably at a temperature of

approximately 85° C. This makes it possible to produce the invented spread easily and quickly.

Examples of the invented object are explained in more detail below.

The spread of the present invention contains at least one beverage, sugar or sweetening agent, thickening agent, acidification agent and cola aroma.

The beverage is preferably composed of water or milk, but can also contain fruit juice or vegetable juice or even an alcoholic beverage.

The sugar is preferably a fine crystal sugar. However, it is also possible to use any other sugar types, e.g., the substance trehalose. A sweetening agent can also be used instead of sugar. This is a sugar substitute such as mannitol, xylite or sorbite, especially sorbitol, isomalt, maltitol, lactitol or starch syrup, or a sweetening agent such as cyclamate, aspartame, saccharin or acesulfam potassium. Starch syrup is also called glucose syrup and is available, for example, under article number 0445 from the Pistor Company, Rothenburg, Switzerland. It is also possible to use molasses or thick fruit juices instead of starch sugar.

The thickening agent is - for example - agar-agar, gum Arabic, pectin, guar flour, carob bean flour, starch, dextrin or gelatin. The previously mentioned pectin and is available, for example, under the type "Violetpunkt" from the Obipektin Company, Bischofszell, Switzerland.

The carob bean flour can be obtained under the name Videogumm 175 from the Obipektin Company, Bischofszell, Switzerland.

Another preferable object of the invention is to provide a spread that contains thickening agent carob bean flour and pectin or pectin and cornstarch in another variant.

The acidification agent contains citric acid. It is also possible to use tartaric acid and/or lactic acid as an acidification agent.

Another preferable object of the invention is to provide a spread that contains a fruit mixture, which is preferably applesauce and/or a nougat mixture such as nut nougat, almond nougat, almond-nut-nougat or sweetened nut pulp - especially a nut-nougat cream. Such mixtures make it possible to make specific adjustments to the taste of the spread. The applesauce can be obtained from the Konservenfabrik Bischofszell, Bischofszell, Switzerland, for example. The previously mentioned nut-nougat cream corresponds to creams of this type, which are normally available in food stores. The invention is not limited to applesauce as a fruit mixture. All purée-type, paste-like and fruit mixtures with pieces of fruit can be used.

An object of the invention is to provide a spread that contains a food-coloring agent in the form of caramel syrup. Other substances approved for use in foodstuffs can also be used. For example, the caramel syrup can be obtained

under the type 75/700 from the Flachsmann Company, Wadenswil, Switzerland. Another object of the invention is to provide a spread that contains additional aroma substances, for example, caramel aroma and/or lime aroma, whereby the former is available under the type 030.022 and the latter under the type 020.045 from the previously mentioned Flachsmann Company, and/or stimulating substances such as caffeine and taurine.

A first preferable object of the invention is to provide a spread with the following ingredients in approximate proportions of weight:

100 parts water

20 parts sugar

1.6 parts carob bean flour

1.6 parts pectin

40 parts starch syrup

20 parts sugar

40 parts applesauce

20 parts caramel syrup

1.5 parts citric acid

0.9 parts cola aroma

0.6 parts caramel aroma

0.1 part lime aroma

A second preferable object of the invention is to provide a largely sugar-free spread with approximately the following ingredients in proportions of weight:

100 parts milk

50 parts isomalt

7 parts corn starch

1.6 parts pectin

0.2 parts aspartame

60 parts sorbite

20 parts nut-nougat cream

0.2 parts cola aroma

1 part caramel aroma

It is apparent that the spread can contain other substances in addition to the previously mentioned ones, for example, aromas of any kind and taste, emulsifying agents such as lecithin, monoglyceride and diglyceride, fats and oils such as coconut oil, palm nut oil, animal and vegetable fats, and - as mentioned previously - additives of caffeine and other stimulating substances, which are approved for use in foodstuffs and constituent substances.

The invented spread can also be mixed with dairy products, for example, with curd cheese, cottage cheese or fruit pastes, especially nut pastes. The spread can also contain technical auxiliary substances such as citric buffers, foaming agents, substances that generate carbon dioxide, antioxidation agents, preservation substances and antifoaming agents.

The process for producing the spread in the above-mentioned first and second preferable versions is explained in more detail below.

The process involves the following steps:

- a) Preparing an initial spread ingredient in proportions of weight of 100 parts water
- b) Mixing a second spread ingredient in proportions of weight of 20 parts sugar, 1.6 parts carob bean flour and 1.6 parts pectin.
- c) Stirring in the second spread ingredient in accordance with step b) into the first spread ingredient in accordance with step a) and bringing the resultant mixture to a boil.
- d) Adding a third spread ingredient in proportions of weight of 40 parts starch syrup, 20 parts sugar, 40 parts applesauce, 20 parts caramel syrup to the mixture in accordance with step c); dissolving the third spread component by stirring the resultant mixture and bringing it to boil.
- e) Mixing a forth spread ingredient composed of 1.5 parts citric acid, 0.9 parts cola aroma, 0.6 parts caramel aroma and 0.1 part lime aroma.
- f) Adding and stirring the forth spread ingredient to or with the boiled mixture in accordance with step d) and decanting the finished spread at a temperature of approximate 85° C.

The container used for boiling with the mixture contained in it according to step c) is preferably removed from the hotplate or stove after the contents have been brought to a boil. The adding of components in accordance with step d) and the stirring in accordance with step d) is conducted while stirring slowly in one direction. The stirring in accordance with step f) is conducted while stirring rapidly in one direction.

The process to produce a spread in the second preferred example involves the following steps:

- a) Preparing an initial spread ingredient of 100 parts milk in proportions of weight.
- b) Stirring in and dissolving 50 parts of isomalt in proportions of weight
- c) Mixing a second spread ingredient in proportions of weight of 7 parts cornstarch, 1.6 parts pectin and 0.2 parts aspartame.
- d) Stirring in the second spread ingredient in accordance with step c) into the first spread ingredient in accordance with step b).
- e) Adding a third spread ingredient in proportions of weight of 60 parts sorbite to the mixture in accordance with step d); bringing the resultant mixture to a boil while stirring.
- f) Adding and stirring in a forth spread ingredient composed of 20 parts nougat cream, 0.2 parts cola aroma and 1 part caramel aroma to or with